

## ABSTRACT

A high-speed rotor, in particular a permanent-magnet rotor (1) for dynamoelectric machines of high power density, and also its production are proposed. The permanent-magnet rotor (1) comprises a spindle (2) and armouring (4) coaxial with the spindle (2), a number of ceramic permanent magnets (3a-3d) that are distributed between the spindle (2) and the cylindrical sheath (4), and also a gap-filling filling compound. Said filling compound made of filled polymers seals the gaps in the permanent-magnet rotor (1) by injection moulding. Due to the remanent pretension, the permanent magnets (3a-3d) remain permanently rigidly joined even against high centrifugal forces.

(Figure 1)